Hazardous Waste System Leak Testing

3M Tape Manufacturing Division Plant

St. Paul, Minnesota

June 23, 1999

3M Project Number 20–1525

Laboratory Request No. W2107

Prepared for:

Jeffrey W. Stock
Environmental Technology
and Safety Services/3M
Building 2–3–09
935 Bush Avenue
PO Box 33331
St. Paul, Minnesota 55133–3331

Prepared by:

Precision Environmental
8251 Main Street Northeast
Minneapolis, Minnesota 55432
(612) 780–9787
FAX (612) 780–7157

Date Printed: June 24, 1999

CERTIFICATION OF TEST REPORT

1. Certification of sampling procedures by the team leader of the personnel conducting the sampling procedures:

   "I certify that the data presented in this test report are, to the best of my knowledge and belief, true, accurate, and complete. All exceptions are listed and explained below."

   Signature: Ashley Larson
   Date: 6/24/99

   Printed Name: Ashley V. Larson
   Title: Operations Manager
   Representing: Precision Environmental

2. Certification of test report by the senior staff person at the testing company who is responsible for compiling and checking the test report:

   "I certify that this test report and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the test information submitted. Based on my inquiry of the person or persons who performed sampling and analysis relating to the performance test, the information submitted in this test report is, to the best of my knowledge and belief, true, accurate, and complete. All exceptions are listed and explained below.:

   Signature: Ashley Larson
   Date: 6/24/99

   Printed Name: Ashley V. Larson
   Title: Operations Manager
   Representing: Precision Environmental

Table of Contents

List of Tables

List of Appendices

1.00 Introduction

This report is a summary of air emission monitoring and analysis performed by Precision Environmental as requested by:

Jeffrey W. Stock
Environmental Technology
and Safety Services/3M
Building 2-3-09
935 Bush Avenue
PO Box 33331
St. Paul, Minnesota 55133-3331

Monitoring results and procedures described in this report were performed on June 23, 1999 in conjunction with the following project:

Hazardous Waste System Leak Testing
3M Tape Manufacturing Division Plant
St. Paul, Minnesota
3M Project No. 20-1525
3M Laboratory Request No. W2107

This location will be referred to as the project site for the remainder of the report. The purpose of the project was to test the hazardous waste system for leaks in accordance with EPA Method 21 and 40 CFR Part 264 Subpart BB–Air Emission Standards for Equipment Leaks.

2.00 Summary of Results

2.10 Method 21 Results

The St. Paul Tape Plant Hazardous Waste System was tested for leaks on June 23, 1999. Testing was conducted in accordance with EPA Method 21 and 40 CFR Part 264 Subpart BB–Air Emission Standards for Equipment Leaks.

A summary of the monitoring is as follows:

1. A catalytic oxidation detector (GAS TECH Trace-Techtor) was used to test for leaks of the hazardous waste system. All valves and open-ends were tested in accordance with Method 21. A summary of results is shown in Table 1. Field data sheets are enclosed in Appendix A.

2. Based on the test results, no leaks were detected at the tested locations of the hazardous waste system.

3.00 Test Procedures

The St. Paul Tape Plant Hazardous Waste System was tested for leaks on June 23, 1999. Testing was conducted in accordance with EPA Method 21 and 40 CFR Part 264 Subpart BB–Air Emission Standards for Equipment Leaks. Sampling parameters were as follows:

Parameter	
Monitoring Instrument:	Catalytic Oxidation Detector
Model:	Trace–Techtor
Manufacturer:	GAS TECH
Reference Compound:	Not Applicable
Calibration Gas:	4,400 ppmv n- Hexane
Response Factor(s):	Not Applicable
Calibration Precision:	0.6 %
Response Time:	15 Seconds
Sample Flow Rate:	2 LPM

A summary of results is shown in Table 1. Field data sheets are enclosed in Appendix A.

Table 1
Method 21 Results Summary
Hazardous Waste System Leak Testing
3M Tape Manufacturing Division Plant - St. Paul, Minnesota
Precision Environmental June 23, 1999

Compliance Limit: 500 ppmv

Location	I.D. No.	Description	Background, ppmv	Result, ppmv	Difference, ppmv	Pass/Fail
Building 51	2	Ball Valve	16	20	4	Pass
Building 51	4	Valve	16	20	4	Pass
Building 51	9	Valve	3	3	0	Pass
Building 51	8	Open-End (Plugged)	3	4	1	Pass
Building 51	10	Valve	4	4	0	Pass
Building 51	10	Open-End (Gauge)	4	4	0	Pass
Building 51	13	Check Valve	4	4	0	Pass
Building 51	18	Gate Valve	4	4	0	Pass
Building 51	20	Valve	4	4	0	Pass
Building 51	20	Open-End	4	5	1	Pass
Building 51	23	Open-End (Capped)	2	2	0	Pass
Building 51	28	Gate Valve	3	6	3	Pass
Building 51	28	Open-End (Plugged)	3	3	0	Pass
Building 22	30	Pump	2	2	0	Pass
Building 22	31	Open-End (Plugged)	2	2	0	Pass
Building 22	31	Valve	2	3	1	Pass
Building 22	33	Ball Valve	2	2	0	Pass
Building 22	34	Ball Valve	2	1	-1	Pass
Building 22	35	Air-Actuated Valve	2	2	0	Pass
Building 22	38	Open-End (Plugged)	3	3	0	Pass
Tanker Area	40	Open-End (Cam-Lock)	5	5	0	Pass
Tanker Area	41	Open-End	5	5	0	Pass
Tanker Area	42	Open-End (Cam-Lock)	5	5	0	Pass

PRECISION ENVIRONMENTAL
eld Monitoring and Testing Services

METHOD 21 DATA SHEET

Page 1 of 1

Client Name: 3M ETS
Address: 935 Bush Ave
City, State Zip: St. Paul, MN 55113

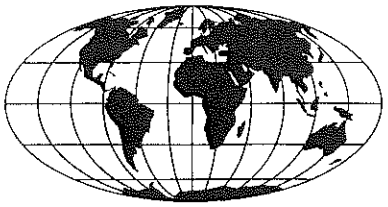
Project Title: Haz. Waste System Leak Detection
Project Number:
Contact: Jeff Stock

Span	4400	Hexane	= 4400	0=0
Building 51	Ambient Air			
Background	3 ppm	Background	Result, ppmv	Comments
#2	Ball valve	16	20	Background collect ~3' from valve
#4	valve	16	20	Background collected ~3' from valve
#9	valve	3	3	Background collected ~4' from valve
#8	threaded plugged open end	3	4	Background collected ~4' from sample
#10	Valve	4	4	Background collected ~2' away
#10	gauge	4	4	"
#13	check valve	4	4	"
#14	gate valve	4	4	Background collected ~3'
#20	valve	4	4	Background collected ~3' away
#20	Open end	4	5	"
#23	crimped open end	2	2	Background collected ~3' away
#28	gate valve	3	6	Background collected ~3' away
#28	plugged open end	3	3	"
AVL #26				
Building 22	Background	2		
Location	Description	Background	Result	Comment
#30	pump	2	2	Background collected ~4' away
#31	plugged open end	2	2	"
AVL #32 #31	no handle valve	2	3	Background collected ~3' away
#33	Ball valve	2	2	Background collected ~3' away
#34	Ball valve	2	1	"
#35	Air actuated valve AOV	2	2	"
#38	plugged open end	3	3	Background collected ~3' away
#40	cam lock	5	5	"
#41	open end	5	5	
#42	cam lock	5	5	

Form Completed by: AVL
Date Completed: 6/23/99
Present on Site: AVL

Attachment 4

3M Environmental Standard



ET&S Providing Global Leadership

Above Ground Tank Inspection

Applicability **This standard applies to all 3M U.S. and O.U.S. operations.**

Introduction The following preventive maintenance/inspection standard has been developed to minimize the potential for adverse environmental effects associated with the above ground storage of hazardous substances and petroleum products.

Standard **Above ground storage tanks containing hazardous substances or petroleum products shall be routinely inspected.**

Inspection Routine Inspect tanks daily and monthly or at other appropriate intervals. Include the date of inspection and the inspector's initials. Keep inspection logs on file for three years.

Suggested inspection procedures:

DAILY Examine the visible and readily accessible portions of each tank system, including the tank, piping, pumps, secondary containment, etc., for evidence of active leaks. Signs of leakage may include liquid flowing, unusual paint blistering, an unexplained wet area or odor inside the secondary containment. Note and investigate unusual conditions.

MONTHLY Check overfill and spill protection equipment (high level alarms, gauges, shutoffs) for proper operation. Examine visible portions of tank foundations and piping supports for deterioration. Check secondary containment structures for erosion, cracking, or other conditions which may compromise their integrity. Note and investigate unusual conditions.

Comments Tanks containing materials such as water or inert gas are not part of this program, but some level of routine inspection may be appropriate.

For Further Information Contact Environmental Technology and Services, St. Paul, MN, 612-778-4335

R. P. Bringer, Staff Vice President
Environmental Technology and Services

3M Environmental Technology and Services
Building 41-01-05
St. Paul, MN 55133
612 778 4335

Recycled paper
40% pre-consumer
10% post-consumer

Issued: 26 Sep 88 – U.S. Only
Reissued: 1 Nov 90 – to include O.U.S.

Attachment 5

Attachment 6